

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.	Teil Part	Beschreibung Description	Position Sheet Pos.	Ort Loc.	Teil Part	Beschreibung Description	Position Sheet Pos.	Ort Loc.				
A01	Maschinensteuerung machine controller	92003565	siehe Zusatztable		S10	Bremstaster brake switch	90472176	6/14	A01	Maschinensteuerung machine controller	X1 5/1 X2 5/2	X2 5/4 X5 5/14	X6 5/26 X7 5/18	X7 5/24 X14 5/9	X15 5/11 X22 4/42	
A02	Bedienfeld control panel	97135842	4/39		T10	Kombiantenne GPS/GSM Antenna	90672007	8/18	A01/X3	Maschinensteuerung machine controller	X3/1 +/+ X3/2 4/32	X3/3 +/+ X3/4 4/33	X3/5 4/35 X3/6 +/+			
A04	Fahrsteuerung drive controller	90699422	siehe Zusatztable		V01	Freilaufdiode Hupe free-wheeling diode for horn	90194879	4/61	A01/X4	Maschinensteuerung machine controller	X4/1 4/19 X4/2 +/+	X4/3 4/24 X4/4 4/25	X4/5 4/21 X4/6 +/+	X4/7 4/27 X4/8 4/28		
A20	Fleetrecorder fleetrecorder	97131411	8/13		Y01	Wasserventil water valve	90543562	5/20	A01/X8	Maschinensteuerung machine controller	X8/1 +/+ X8/2 4/3	X8/3 4/6 X8/4 +/+	X8/5 4/39 X8/6 4/3	X8/7 4/9 X8/8 +/+		
A101	Chemiepumpensteuerung chemical pump controller	97117816	7/43		X01	Batteriestecker 160A battery connector 160A	X01/P 2/7 X01/N 2/7		A01/X9	Maschinensteuerung machine controller	X9/1 5/38 X9/2 +/+ X9/3 4/34	X9/6 5/49 X9/7 +/+ X9/8 4/33	X9/11 5/37 X9/12 +/+ X9/13 4/36	X9/16 5/52 X9/17 +/+ X9/18 4/37	X9/19 +/+ X9/20 5/44	
B03	Fahrgeber accelerator	97131882	6/10		X41	Steckverbinder 1pol. (W3<->W77) connector 1 pole (W3<->W77)	X41/1 8/25		A01/X10	Maschinensteuerung machine controller	X10/1 6/22 X10/2 6/28	X10/6 +/+ X10/7 +/+	X10/11 +/+ X10/12 6/38	X10/16 +/+ X10/13 6/33		
B04	Frischwassersensor fresh water sensor	97139471	5/49		X46	Steckverbinder 6pol. (W2<->W10) connector 6 pole (W2<->W10)	X46/1 7/24 X46/2 7/24	X46/3 7/17 X46/4 7/17	5/43 5/45	A01/X11	Maschinensteuerung machine controller	X11/1 5/7 X11/2 5/11	X11/6 5/39 X11/7 5/46	X11/11 5/49 X11/12 5/25		
B05	Schmutzwassersensordrucksensor sewage sensor	92000082	5/42		X47	Steckverbinder 4pol. (W2<->W3) connector 4 pole (W2<->W3)	X47/1 7/33 X47/2 7/33	X47/3 4/46 X47/4 4/61		A01/X11	Maschinensteuerung machine controller	X11/3 5/16 X11/4 5/51	X11/8 5/8 X11/9 5/13	X11/13 5/37 X11/14 5/43		
B20	I-Button-Reader i-button-reader	97131429	8/39		X48	Steckverbinder 4pol. (W10<->W65) connector 4 pole (W10<->W65)	X48/1 7/17 X48/2 7/17									
B101	Durchflussmesser flow sensor	90596529	7/44		X51	Steckverbinder 4pol. (W2<->W4) connector 4 pole (W2<->W4)	X51/1 5/50 X51/2 5/53	X51/3 5/38 X51/4 5/39								
E01	Arbeitsscheinwerfer working headlight	97132807	7/8		X60	BDIIL Diagnosestecker BDIIL diagnostic connector	X60 3/41		A01/X13	Maschinensteuerung machine controller	X13 4/6					
E02	Warneinrichtung Front warning beacon front	97131023	7/33		X78	Steckverbinder 4pol. (W3<->W77) connector 4 pole (W3<->W77)	X78/1 8/39 X78/2 8/43	X78/3 8/39 X78/4 8/43		A01/X16	Maschinensteuerung machine controller	X16/1 5/4 X16/2 5/5				
E03	Warneinrichtung Heck warning beacon back	97131023	7/23		X100	VGND Display VGND connector display	X100 4/38		A01/X19	Maschinensteuerung machine controller	X19/1 +/+ X19/2 5/28	X19/3 5/34 X19/4 +/+				
E04	Blitzleuchte am Stab warning beacon on the rod	97084222	7/17		X101	VGND MaSt VGND connector machine controller	X101 4/6		A04	Fahrsteuerung drive controller	B+ 6/2 B- 6/2	M1 6/36 M2 6/34	M3 6/37			
F02	Sicherung Steuerspannung 7,5A controller fuse 7.5A	19731066	2/21		X102	Steckverbinder 1pol. (W2<->W77) connector 1 pole (W2<->W77)	X102/1 8/10		A04/A	Fahrsteuerung drive controller	A/1 6/26 A/2 6/28	A/5 +/+ A/6 6/14	A/11 6/39 A/12 6/5	A/16 6/15		
F03	Sicherung Leistung 125A power fuse 125A	19731579	2/35		X103	Steckverbinder 1pol. (W2<->W3) connector 1 pole (W2<->W3)	X103/1 3/20		A04/B	Fahrsteuerung drive controller	A/3 6/9 A/4 6/25	A/8 6/12 A/9 6/14	A/13 6/45 A/14 +/+			
F04	Sicherung Fahrsteuerung 100A drive controller fuse 100A	19731422	2/41		X106	Steckverbinder 2pol. (W3<->W77) connector 2 pole (W3<->W77)	X106/1 8/19 X106/2 8/20		A04/C	Fahrsteuerung drive controller	A/5 +/+ A/10 6/6	A/15 6/40				
F05	Sicherung Hupe 5A horn fuse 5A	19731181	4/55		X107	Steckverbinder 2pol. (W77) connector 2 pole (W77)	X107/1 8/19 X107/2 8/20				B/1 +/+ B/2 +/+	B/3 +/+ B/4 +/+	B/5 6/21 B/6 6/22	B/7 +/+ B/8 +/+		
F20	Sicherung Fleetrecorder 5A fleetrecorder fuse 5A	19731181	8/4		X108	Steckverbinder 8pol. (W2<->W42) connector 8 pole (W2<->W42)	X108/1 4/34 X108/2 4/35	X108/3 4/37 X108/4 4/38	X108/5 +/+ X108/6 +/+	X108/7 +/+ X108/8 +/+						
G01	Batterie battery	-	2/3		KK01A1	VBat Fleetrecorder VBat for fleetrecorder	KK01A1 8/13									
G02	Batterie battery	-	2/3													
G03	Batterie battery	-	2/3													
G04	Batterie battery	-	2/3													
G10	Einbau-Ladegerät 35A onboard charger 35A	92003284	2/19													

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
X501	USSP ussp	-	6/36	
X502	USSP ussp	-	6/21	
X503	Stossverbinder butt joint	-	5/17	
X504	USSP ussp	-	6/27	
X505	USSP ussp	-	6/29	
X507	Stossverbinder butt joint	-	2/14	
X508	USSP ussp	-	3/18	
X509	USSP ussp	-	3/26	
X510	USSP ussp	-	2,24	
X511	USSP ussp	-	6/11	
X512	USSP ussp	-	5/11	
X513	USSP ussp	-	5/13	
X540	USSP ussp	-	4/54	
X541	USSP ussp	-	4/19	
X542	USSP ussp	-	4/20	
X558	USSP ussp	-	2/21	
X577	USSP ussp	-	8/34	
X578	USSP ussp	-	8/13	
X579	USSP ussp	-	8/20	

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
	Flachbandkabel ribbon cable	90680059		
W1	Kabelbaum W1 cable harness W1	97137228		
W1	Kabelbaum W1 cable harness W1	97158448		
W2	Kabelbaum W2 cable harness W2	97137244		
W3	Kabelbaum W3 cable harness W3	97137236		
W4	Kabelbaum W4 cable harness W4	97137293		
W10	Kabelbaum W10 cable harness W10	97137251		
W35	Kabelbaum W35 cable harness W35	97148183		
W36	Kabelbaum W36 cable harness W36	97148191		
W42	Kabelbaum W42 cable harness W42	97137269		
W65	Kabelbaum W65 cable harness W65	97147144		
W77	Kabelbaum W77 cable harness W77	97131163		
W102	Kabelbaum W102 cable harness W102	97137277		
WS5	Kabelsatz WS5 cable harness WS5	97130017		
WS6	Kabelsatz WS6 cable harness WS6	97140750		
WS7	Kabelsatz WS7 cable harness WS7	97140768		

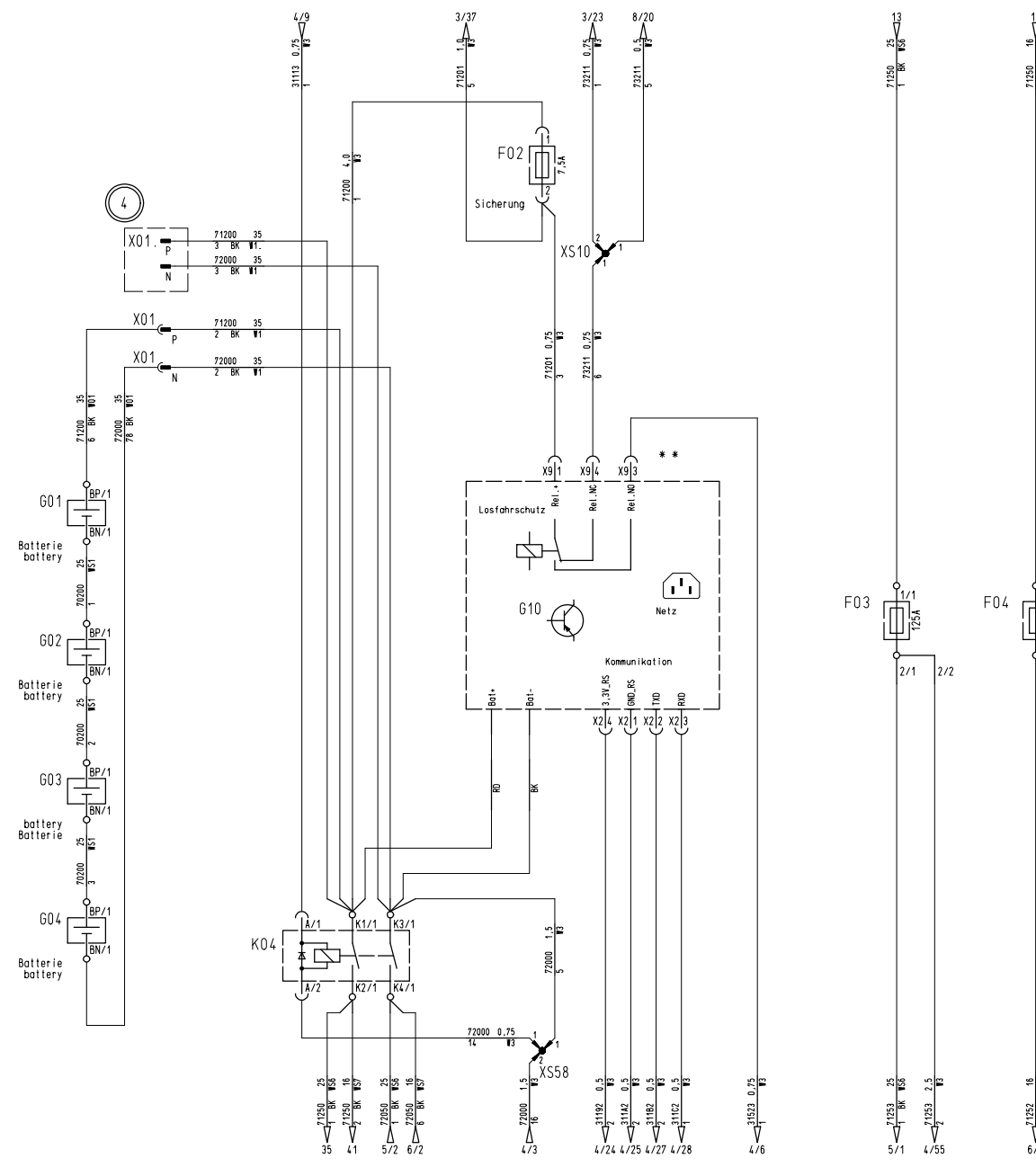
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					Drawn by	02 11	Jkem		
A2	No.	Number appears	Change No.	Date	Name	Standard	Change No.	3515-21	For this drawing we reserve all rights (acc. DIN ISO 16016)

Schaltplan B120 / Circuit diagram B120

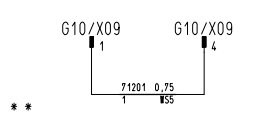


Drawing Number
91037861

D-23840 Bad Oldesloe
Type 7177 Dep. ELK No. of Sh. 10 Sheet 1

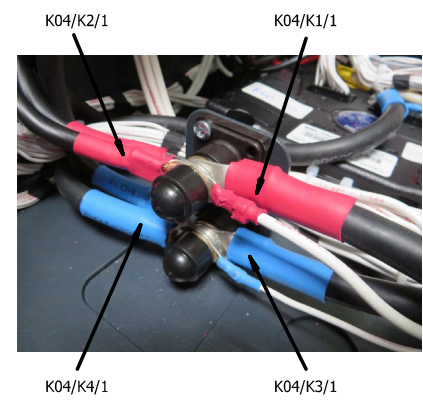


- ### Legende
- F02 Sicherung Steuerspannung 7,5A controller fuse 7,5A
 - F03 Sicherung Leistung 125A power fuse 125A
 - F04 Sicherung Fahrsteuerung 100A drive controller fuse 100A
 - G01 Batterie battery
 - G02 Batterie battery
 - G03 Batterie battery
 - G04 Batterie battery
 - G10 Einbau-Ladegerät 35A onboard charger 35A
 - G10/X09 Brückenstecker 4pol. bridge plug 4 pole
 - K04 Hauptrelais main contactor
 - X01 Batteriestecker 160A battery connector 160A
 - XS10 USSP ussp
 - XS58 USSP ussp



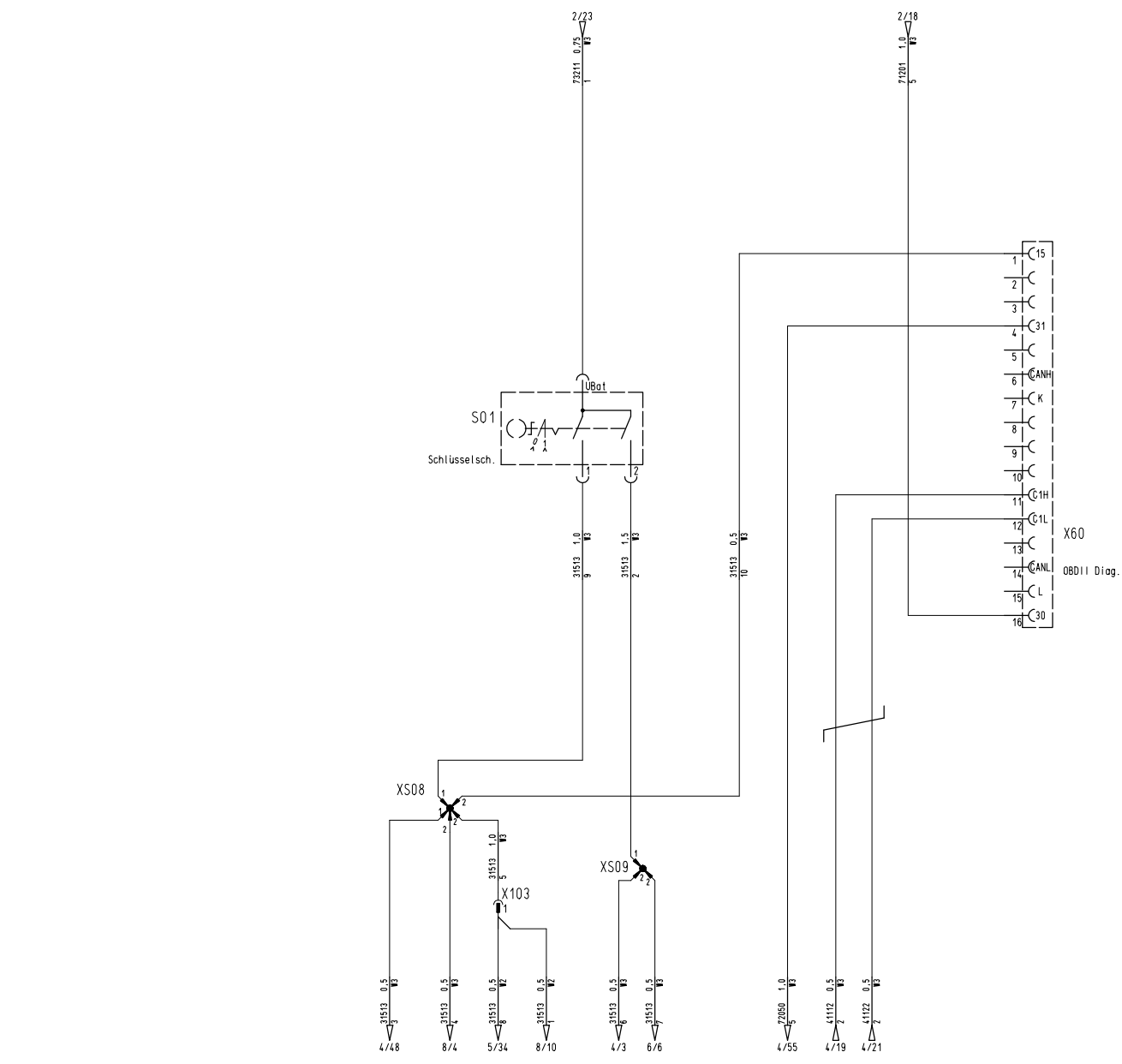
Bei Variante Übersee Stecker G10 X09 an Stecker für G10.X9 anschließen
 at variant overseas connect G10 X09 at connector for G10.X9.

Bei Variante Übersee entfallen das Einbauladgerät G10 und das Hauptrelais K04. Anstelle des Hauptrelais sind zwei isolierte Bolzen montiert. Anschliessen wie unten dargestellt. Auf Steckverbinder G10/X9 den Brückenstecker (Kabelsatz WS5) aufstecken (Losfahrerschutz).
 in the overseas variant, the onboard charger G10 and the main contactor K04 are omitted. Two insulated bolts are mounted instead of the main contactor. Connect as shown below. Attach the bridge plug (cable harness WS5) to the plug connector (start protection)



Auf dem oberen Bolzen (+ Potenzial) Adern mit der Beschriftung auflegen:
 von links: K04/K2/1
 von rechts: K04/K1/1
 on the top bolt (+ potential) connect the wires to the label
 from left: K04/K2/1
 from right: K04/K1/1
 Auf dem unterem Bolzen (- Potenzial) Adern mit der Beschriftung auflegen:
 von links: K04/K4/1
 von rechts: K04/K3/1
 on the lower bolt (- potential) connect the wires to the label
 from left: K04/K4/1
 from right: K04/K3/1

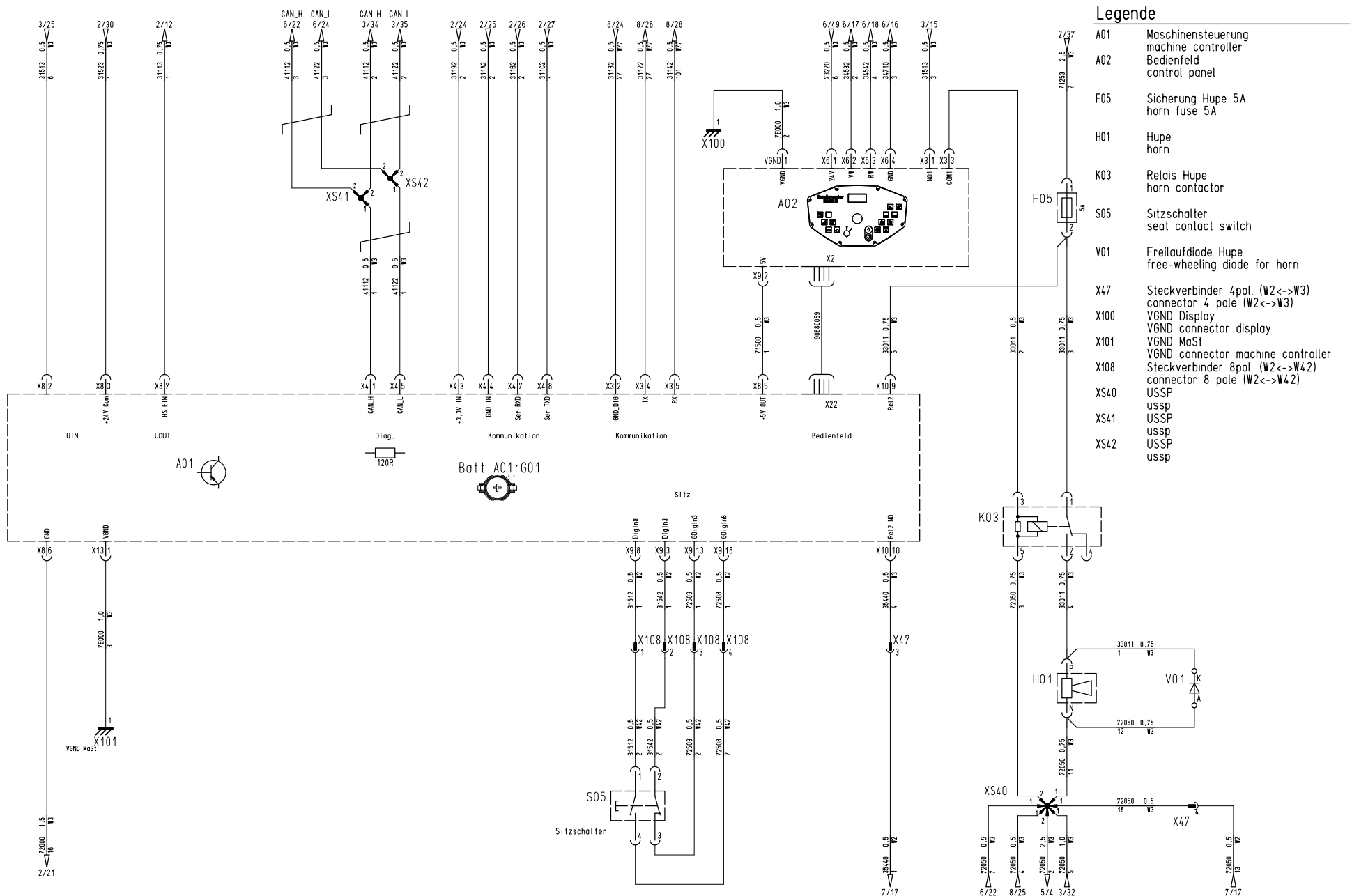
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A2	No.	Number appears	Change No.	Date	Standard	Verified	Drawn by	JKem	Replacem for same no
									Change No. 3515-21
Schaltplan B120 R / Circuit diagram B120 R									
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								KAB1 472	Drawing Number
								D-23840 Bad Oldesloe	91037861
								Type 7177	No. of Sh. 10 Sheet 2



Legende

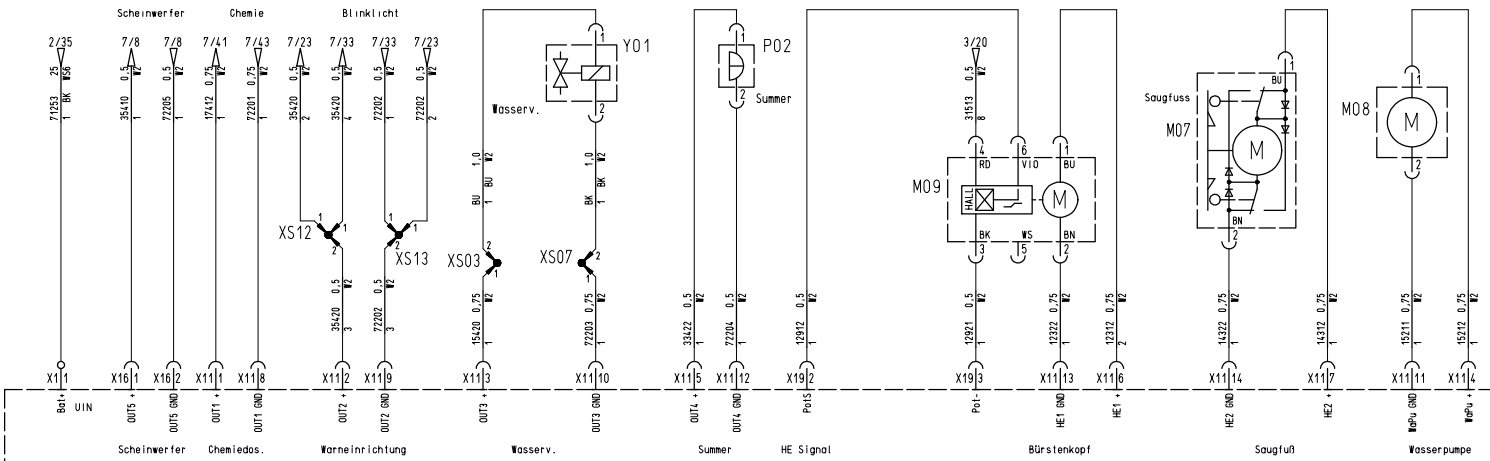
S01	Schlüsselschalter key switch
X60	OBDII Diagnosestecker OBDII diagnostic connector
X103	Steckverbinder 1pol. (W2<->W3) connector 1 pole (W2<->W3)
XS08	USSP
XS09	USSP

A2	No.	Number appears	Change No.	Date	Name	Standard	2015	Date	Name	B120R	Name	Schaltplan B120 R / Circuit diagram B120 R	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number	91037861
							Drawn by	02 11	JKem						



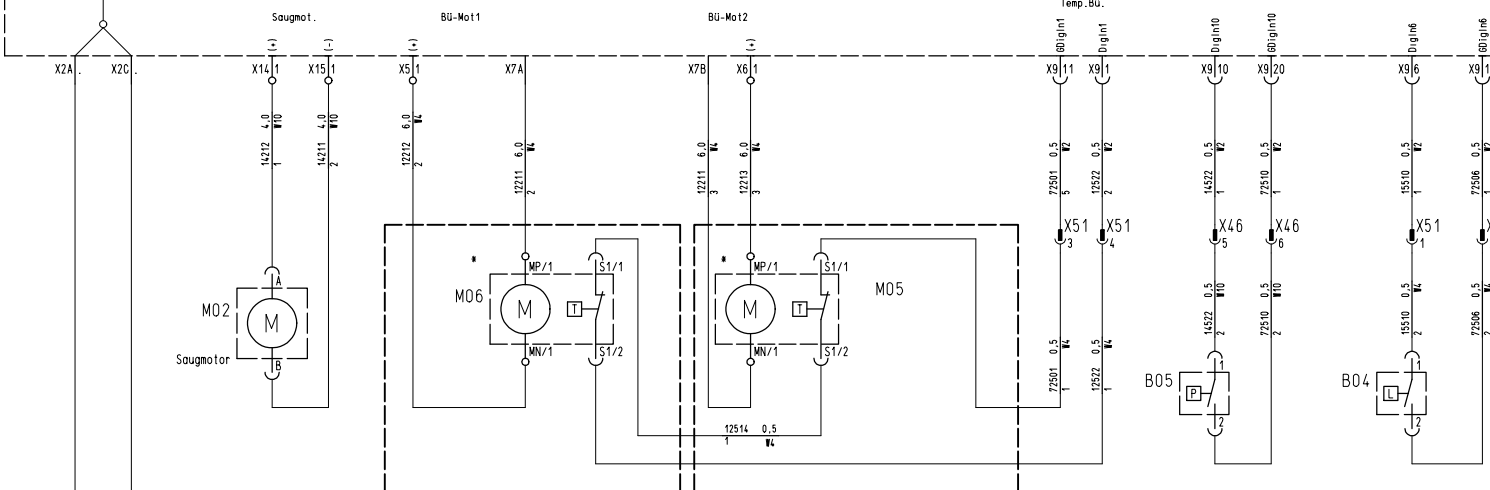
- ### Legende
- A01 Maschinensteuerung
machine controller
 - A02 Bedienfeld
control panel
 - F05 Sicherung Hupe 5A
horn fuse 5A
 - H01 Hupe
horn
 - K03 Relais Hupe
horn contactor
 - S05 Sitzschalter
seat contact switch
 - V01 Freilaufdiode Hupe
free-wheeling diode for horn
 - X47 Steckverbinder 4pol. (W2<->W3)
connector 4 pole (W2<->W3)
 - X100 VGND Display
VGND connector display
 - X101 VGND MaSt
VGND connector machine controller
 - X108 Steckverbinder 8pol. (W2<->W42)
connector 8 pole (W2<->W42)
 - XS40 USSP
 - XS41 USSP
 - XS42 USSP

4	//	3650-39	10.12.18	Ri	2015	Date	Name	B120R	Name	Schaltplan B120 R / Circuit diagram B120 R		Drawing Number	91037861			
					Drawn by	02 11	JKem							Replacem for same no		
A2	No.	Number appears	Change No.	Date	Name	Standard	Change No.	3515-21	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 472	Type 7177	Dep. ELK	No. of Sh. 10	Sheet 4



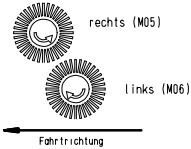
Legende

- A01 Maschinensteuerung
machine controller
- B04 Frischwassersensor
fresh water sensor
- B05 Schmutzwassertanksensor
sewage sensor
- M02 Saugmotor
suction motor
- M05 Tellerbürstenmotor rechts
brush motor right
- M05. Walzenbürstenmotor rechts-vorne
cylindrical motor rechts-vorne
Steckverbinder 2pol. (W4-<->W36)
connector 2 pole (W4-<->W36)
- M06 Tellerbürstenmotor links
brush motor left
- M06 Walzenbürstenmotor links-hinten
cylindrical motor brush left-back
Steckverbinder 2pol. (W4-<->W35)
connector 2 pole (W4-<->W35)
- M07 Hubelement Saugfuß
lifting element for suction element
- M08 Wasserpumpe
water pump
- M09 Hubelement Bürstendeck
lifting element for brush deck
- P02 Summer
buzzer
- X46 Steckverbinder 6pol. (W2-<->W10)
connector 6 pole (W2-<->W10)
- X51 Steckverbinder 4pol. (W2-<->W4)
connector 4 pole (W2-<->W4)
- XS03 Stossverbinder
butt joint
- XS07 Stossverbinder
butt joint
- XS12 ussp
ussp
- XS13 ussp
ussp
- Y01 Wasserventil
water valve



VARIANTE
Tellerbürste

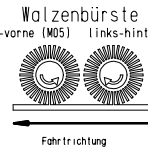
Tellerbürste



■ Anschlussschema

Maschinensteuerung	an	Tellerbürstenmotor / Anschluss
A01/X6/1	on	M05 rechts / Bolzen P (+)rote Leitung
A01/X6/1(r1)	an	M05 rechts / Bolzen P (+)rote Leitung
A01/X7B	an	M05 rechts / Bolzen N (-) schwarze Leitung
A01/X7B(b1)	an	M05/MN/1(b1)
A01/X5/1	an	M06 links / Bolzen N (-) schwarze Leitung
A01/X5/1(r1)	an	M06/MN/1(r1)
A01/X7A	an	M06 links / Bolzen P (+) rote Leitung
A01/X7A(b1)	an	M06/MN/1(r1)

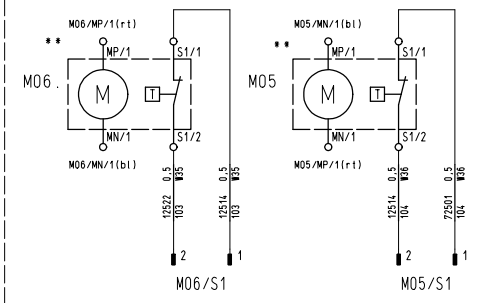
VARIANTE
Walzenbürste



■ Anschlussschema

Maschinensteuerung	an	Walzenbürstenmotor / Anschluss
A01/X6/1	an	M05 rechts-vorne / Bolzen N (-)
A01/X6/1(r1)	an	M05/MN/1(r1)
A01/X7B	an	M05 rechts-vorne / Bolzen P (+)
A01/X7B(b1)	an	M05/MN/1(b1)
A01/X5/1	an	M06 links-hinten / Bolzen N (-)
A01/X5/1(r1)	an	M06/MN/1(r1)
A01/X7A	an	M06 links-hinten / Bolzen P (+)
A01/X7A(b1)	an	M06/MN/1(r1)

Variante Walzenbürstendeck
variante cylindrical brush deck

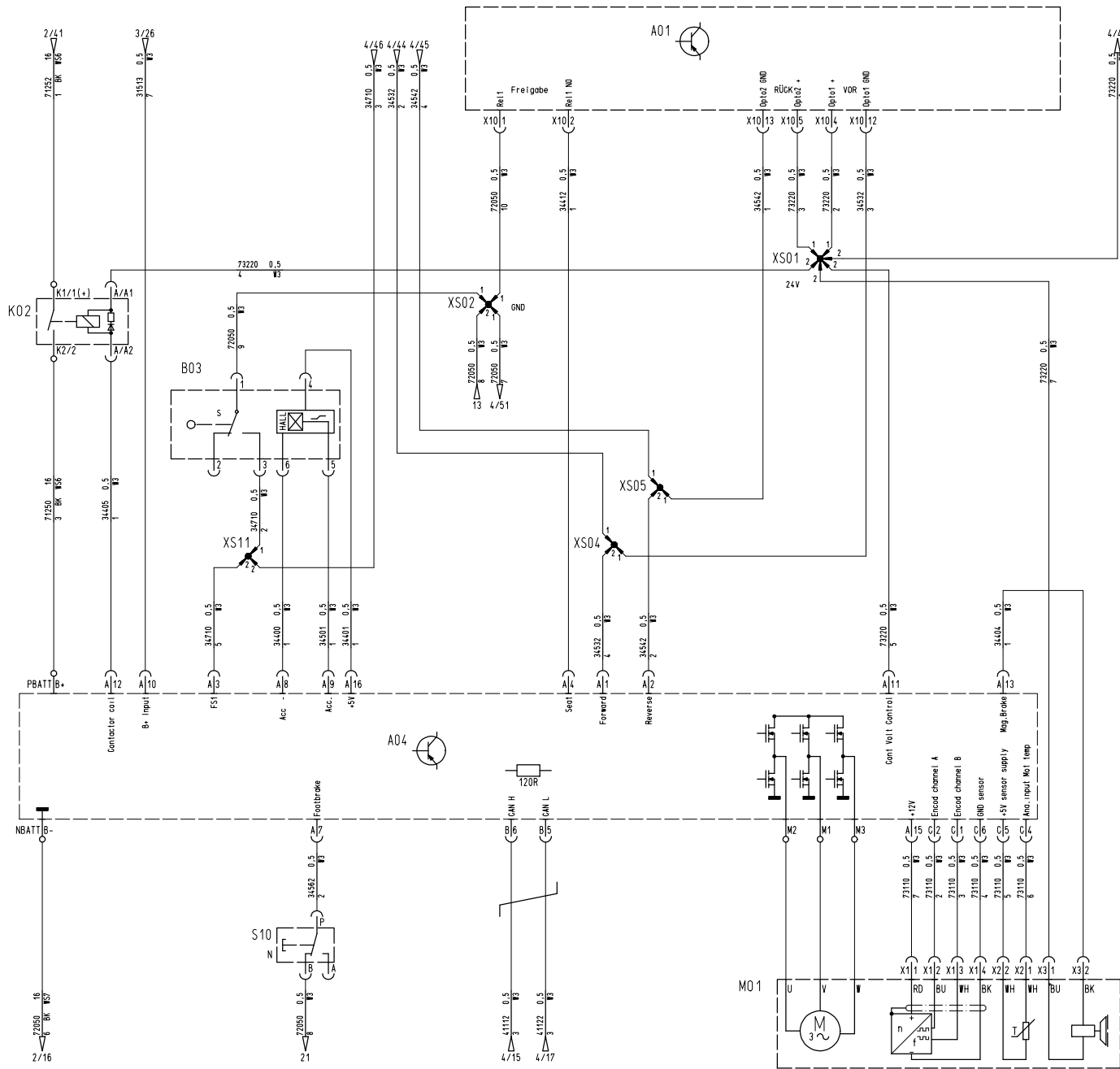


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4	*/	3650-39	10.12.18	Ri		02	11	Jkem	
						Verified			Replacem for some no
						Standard			Change No. 3515-21

Name
Schaltplan B120 R / Circuit diagram B120 R
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Drawing Number
91037861
Type 7177 Dep. ELK No. of Sh. 10 Sheet 5



Legende

- A01 Maschinensteuerung
machine controller
- A04 Fahrsteuerung
drive controller
- B03 Fahrgeber
accelerator
- K02 Relais Fahrsteuerung
drive control contactor
- M01 Fahrantrieb
drive motor
- S10 Bremsaster
brake switch
- XS01 USSP
- XS02 ussp
- XS04 ussp
- XS05 ussp
- XS11 ussp

4	*/	3650-39	10.12.18	Ri	2016	Date	Name	B120R	Name
					Drawn by	02.11	JKem	Replacem. for same no	
					Verified			Change No. 3515-21	
					Schaltplan B120 R / Circuit diagram B120 R				
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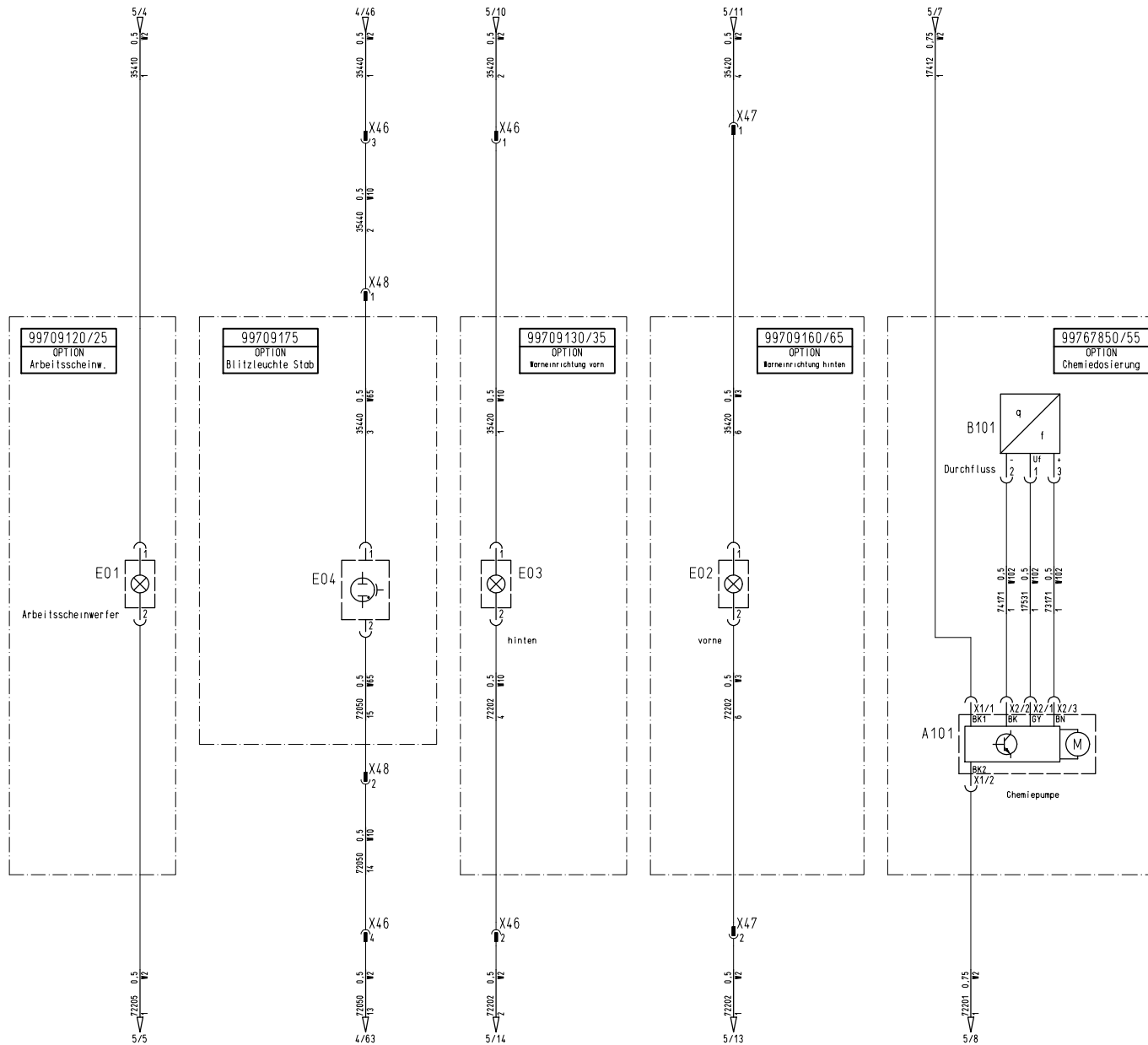


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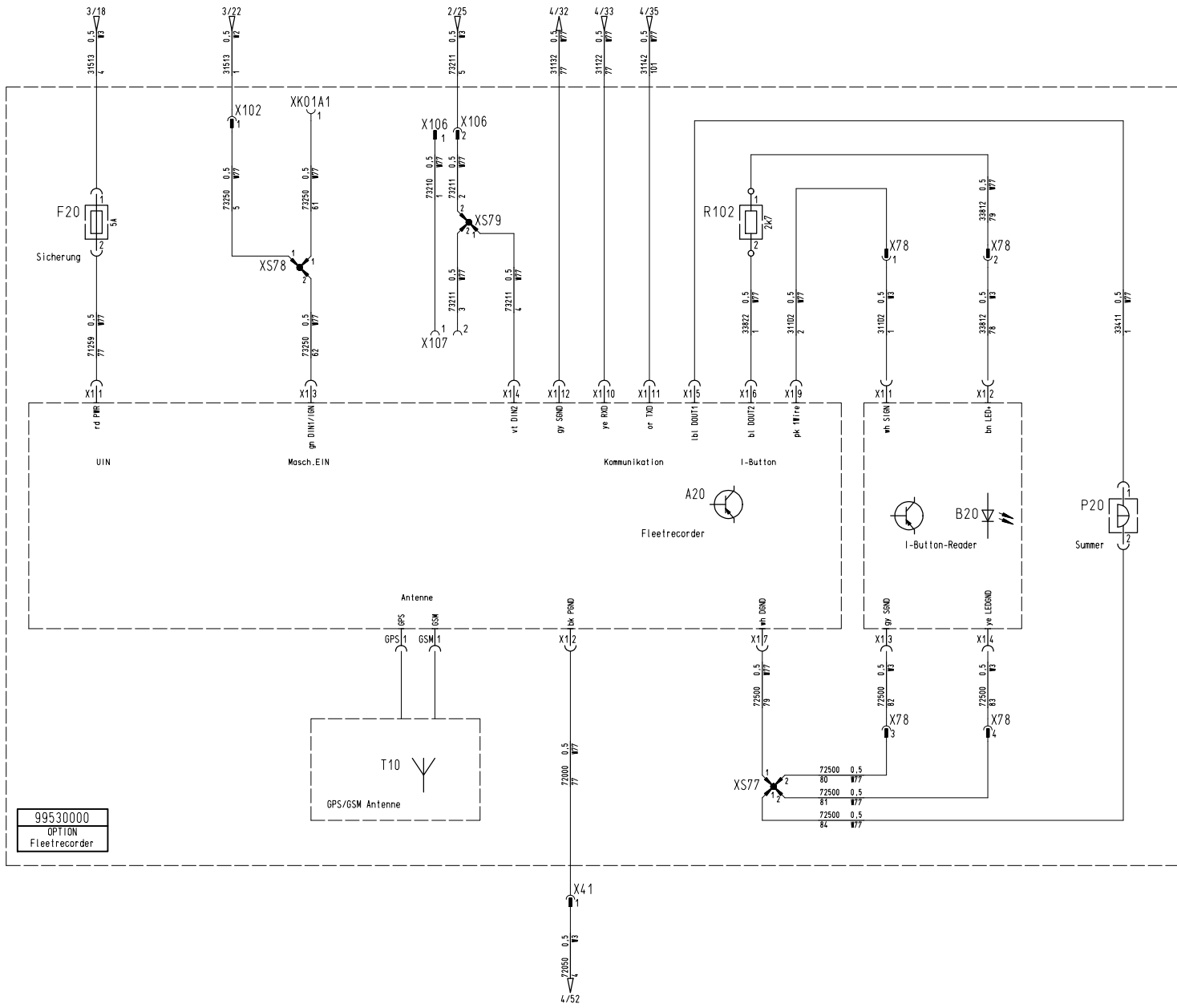
Type 7177 Dep. ELK No. of Sh. 10 Sheet 6

Legende

- A101 Chemiepumpensteuerung
chemical pump controller
- B101 Durchflussmesser
flow sensor
- E01 Arbeitsscheinwerfer
working headlight
- E02 Warneinrichtung Front
warning beacon front
- E03 Warneinrichtung Heck
warning beacon back
- E04 Blitzleuchte am Stab
warning beacon on the rod
- X46 Steckverbinder 6pol. (W2<->W10)
connector 6 pole (W2<->W10)
- X47 Steckverbinder 4pol. (W2<->W3)
connector 4 pole (W2<->W3)
- X48 Steckverbinder 2pol. (W10<->W65)
connector 2 pole (W10<->W65)



A2	No.	Number appears	Change No.	Date	Ri	2015	Date	Name	B120R	Name	Schaltplan B120 R / Circuit diagram B120 R		Drawing Number	91037861
						Drawn by	02 11	JKem						
						Standard			Change No.	3515-21				



Legende

- A20 Fleetrecorder
fleetrecorder
- B20 I-Button-Reader
i-button-reader
- F20 Sicherung Fleetrecorder 5A
fleetrecorder fuse 5A
- P20 Summer Fleetrecorder
buzzer for fleetrecorder
- R102 Vorwiderstand 2k7
resistor 2k7 (cable harness W77)
- T10 Kombiantenne
GPS/GSM Antenna
- X41 Steckverbinder 1pol. (W3<->W77)
connector 1 pole (W3<->W77)
- X78 Steckverbinder 4pol. (W3<->W77)
connector 4 pole (W3<->W77)
- X102 Steckverbinder 1pol. (W2<->W77)
connector 1 pole (W2<->W77)
- X106 Steckverbinder 2pol. (W3<->W77)
connector 2 pole (W3<->W77)
- X107 Steckverbinder 2pol. (W77)
connector 2 pole (W3<->W77)
- XK01A1 VBat Fleetrecorder
VBat for fleetrecorder
- XS77 USSP
ussp
- XS78 USSP
ussp
- XS79 USSP
ussp

99530000
OPTION
Fleetrecorder

4	//	3650-39	10.12.18	Ri	2015	Date	Name	B120R	Name
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A2	No.	Number appears	Change No.	Date	Name	Standard	Replacem	for same no	Change No.
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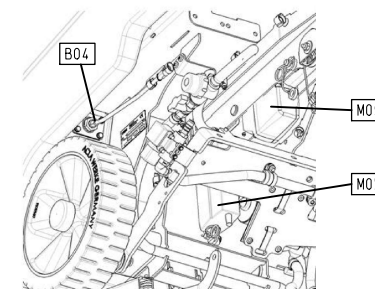
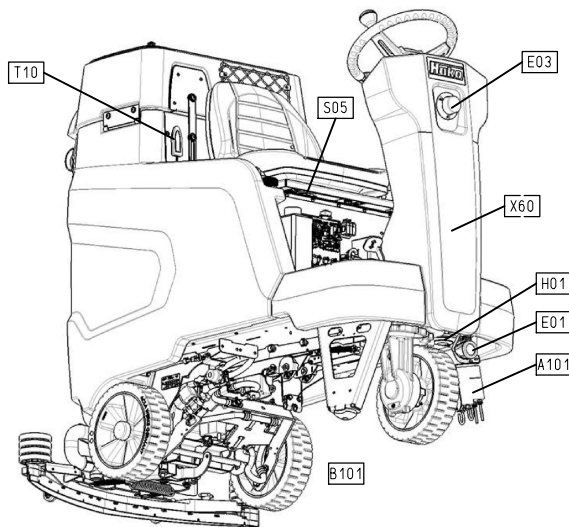
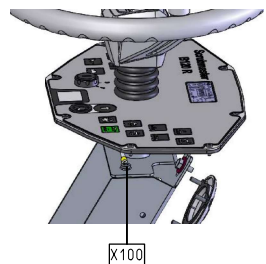
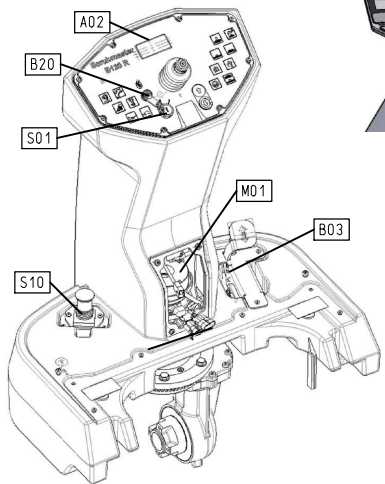
Schaltplan B120 R / Circuit diagram B120 R



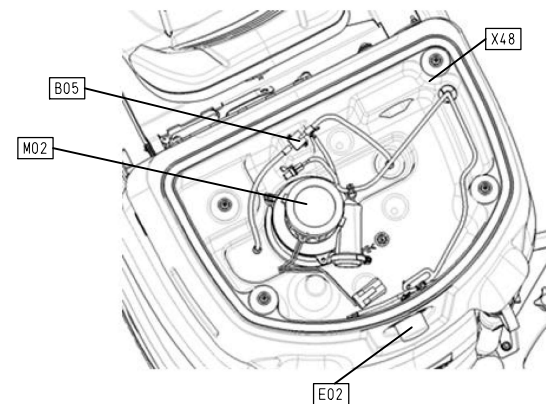
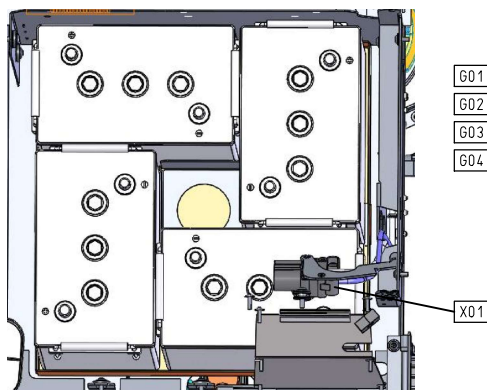
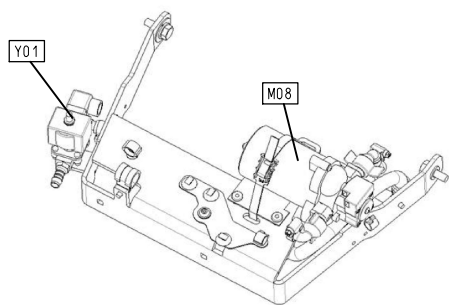
Drawing Number
91037861

For this drawing we reserve all rights (acc. DIN ISO 16016) KABI 472 Type 7177 Dep. ELK No. of Sh. 10 Sheet 8

Lenkkonsole
steering console

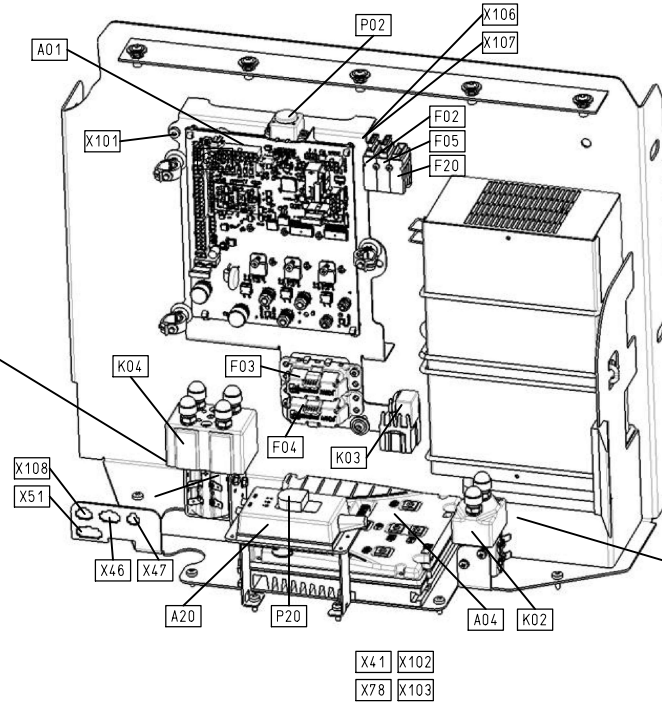


Schwinge
wing

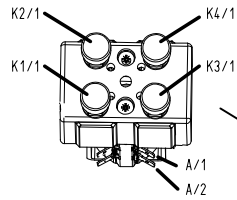
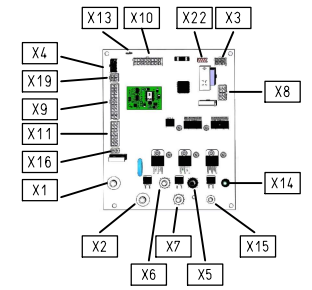


4	*/	3650-39	10.12.18	Ri	2015	Date	Name	B120R	Name	Schaltplan B120 R / Circuit diagram B120 R	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number			
					Drawn by	02.11	JKem						Replacem. for same no	91037861	
A2	No.	Number appears	Change No.	Date	Name	Standard		Change No.	3515-21	For this drawing we reserve all rights (acc. DIN ISO 16016)	KAB1 472	Type 7177	Dep. ELK		No. of Sh. 10

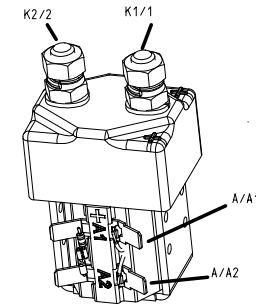
E-Blech
electronic compartment



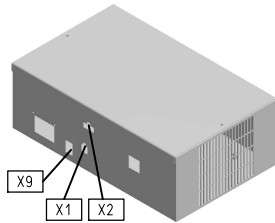
Maschinensteuerung A01
machine control A01



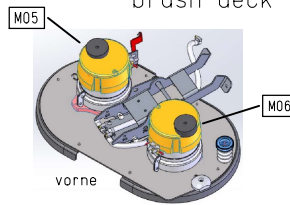
Variante Übersee
variant overseas



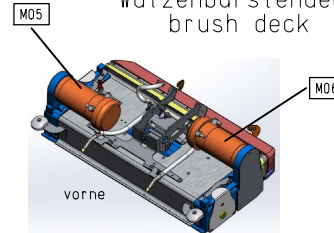
Ladegerät G10
onboard charger G10



Tellerbürstendeck
brush deck



Walzenbürstendeck
brush deck



4	*/	3650-39	10.12.18	Ri	2015	Date	Name	B120R	Name	Schaltplan B120 R / Circuit diagram B120 R	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number 91037861
					Drawn by Verified	02.11	JKem					